



A MONTHLY NEWSLETTER OF SIGNIFICANT REGIONAL AND WASHINGTON ACTIVITIES

CIVIL AERONAUTICS ADMINISTRATION, LOS ANGELES, CALIFORNIA

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RADAR

by Rex Brown
SEMT (Radar)

Rex Brown, SEMT (Radar)
Los Angeles, California

The contraction RADAR is derived from the phrase Radio Detection And Ranging. Radar is no exception to the saying that there is nothing new under the sun. Aside from technical differences, mother nature has used the principles of Radar for centuries. The term "blind as a bat" is correct only in respect to the bat's visual perception because, while flying, he emits a series of short, high pitched (super-sonic) "Beeps", the echoes of which indicate to him the direction and distance of objects with which he might collide.

While the use of sound echoes is perfectly practicable and accurate over short distances, their relatively slow speed of travel through air makes their use over long distances and/or to track rapidly moving objects, highly impracticable and inaccurate. For example, it would take about five minutes to get an echo from an aircraft thirty miles away and the plane would be miles away from its apparent position by the time the echo got back. The limitations of such a "sound" tracking system are obvious.

Fortunately radio "beeps" travel much faster and their echoes can be utilized in exactly the same manner. While sound takes one second to go 1100 feet, a radio wave covers the same distance in only one millionth of a second. A Radar echo from the previously mentioned aircraft at a range of thirty miles returns in about 300 millionths of a second and during this time the plane (if moving at 200 m.p.h.) will have moved only about one inch.

These Radar "beeps" are transmitted by a highly directional antenna which scans through the sector being searched. The position of the antenna in azimuth and the timing of the echoes operate together to electronically control the position and intensity of a spot of light on a Cathode Ray Tube (CRT), similar to a television picture tube. Thus the returning echoes from aircraft, buildings, mountains, etc., literally paint a picture of the area being searched. (Continued on next page)

In CAA we presently have two basic types of Radar systems. One type, called Airport Surveillance Radar, is used primarily as an aid in controlling traffic within the Tower control area. The other type, called "Precision Approach Radar", is as its name implies, a Radar system designed to give extremely accurate information which is used to guide an aircraft to a safe landing under instrument conditions. It is a low power short range system intended for use only to a range of ten miles. The two units together form the GCA System (Ground Controlled Approach). The ASR gives position information which is accurate to within a few hundred feet at thirty miles and within about 100 feet at shorter ranges. However, it provides no elevation information. PAR is the more precise and gives both azimuth and elevation data accurate to within a few feet at touchdown. It utilizes two antennas, one of which scans through a vertical arc of 7 degrees while the other scans through a horizontal arc of 20 degrees. Thus one antenna gathers data relating to the aircraft's elevation while the other gathers data pertaining to its position in relation to the runway centerline.

One has to actually see the system in operation to appreciate its usefulness and versatility in expediting the handling of traffic at a busy airport. The ASR controller can handle all arrival and departure aircraft within a radius of 30-60 miles, directing them along short-cut paths when desirable (not necessarily along the established approach or departure patterns). Lost aircraft can be located quickly by having the pilot make turns or circles until his particular "pip" is identified on the CRT.

The procedure for giving a full GCA landing is to first direct the aircraft by aid of ASR so it intercepts the extended runway centerline at a range of 8-10 miles and at an elevation of about 1500 feet. At this point, the PAR controller takes over. He can tell within a few feet the aircraft's absolute position on the approach. He gives the pilot directions as to what course to fly, rate of descent and distance from touchdown. Such information is given continuously. If the aircraft drifts off the normal GCA Glide Path (which incidentally coincides exactly with the instrument landing system Glide Path) or runway centerline, he is given a correction to his rate of descent or compass course, as appropriate, so as to bring him back on course slowly.

Normally the aircraft will take over and land visually when he gets within a few feet of touchdown, but landings have been made in fog so thick that the pilot could not find his way to the ramp after landing. Ground vehicles have had to go out, locate the plane on the runway and lead it in.

The most popular type of final approach is that in which GCA and ILS team up in what is termed a "Monitored ILS Approach". In this type the pilot makes a normal ILS final approach during which the PAR controller monitors his position. Provided the plane is approaching along the normal Glide Path and Localizer courses the Radar controller says nothing other than to give distance from touchdown information. Only if the aircraft drifts too far off course does Radar advise him of the error and either correct him or, if serious enough, order the approach discontinued.

There is no question but that Radar combined with ILS brings closer the day of all-weather flying.



REGIONAL ADMINISTRATOR'S COLUMN

The Federal Airways Survey is under way. The Survey Team, composed of Messrs. Horning, Johnson, Winger, Plotkin, and myself, has visited ten locations during the month of January. We have conferred with all of the available Airways Operations and Facilities Division personnel at each of these ten locations, either individually or in groups.

These discussions are proving to be intensely interesting from the viewpoint of the members of the Survey Team. It is also my impression that the field participants quickly forget any initial nervousness they may have had and enjoy expressing their views on the subjects discussed, all of which relate to how we in CAA, working together, can do a better job. - We have already received enough new ideas to make the trip well worthwhile and I am sure the additional discussions will bring out other profitable suggestions.

One misconception or misunderstanding appears to be general enough that I should like to correct it now rather than wait until we have visited every individual location. This misunderstanding has to do with the establishment and operation of a combined Airways Operations facility. Some of our people have the impression that when a Communications Station and a Tower are combined one of these activities is absorbing the other. This isn't the case at all, and it isn't what integration means. Actually we have a new type of facility. In other words, we now have four types of Airways Operations facilities; namely, Centers, Towers, Communications Stations, and Combined Facilities. In the case of a Combined Facility, as the name indicates, certain functions previously performed separately in two facilities are now performed in one facility. Neither has taken over the other. It is a new type of facility with distinct functions and job descriptions.

Now a word of caution to the people at the locations we have already visited. Please do not be discouraged if you do not see immediate results from all of the proposals, ideas, and suggestions which you placed before the Survey Team. Bear in mind that it will take us several months to complete the survey, and that final recommendations and the development of new projects or changes in existing programs must necessarily await completion of the survey. In all likelihood, action can and will be initiated by the Division Chiefs on many of those items which affect only the operation of an individual facility. Policy questions of either regional or national character must be deferred pending completion of our consultations of all affected segments.

We are looking forward to seeing each of you as we cover the Region, and we express appreciation to the Deputy Chiefs and Branch Chiefs who are carrying the additional load at the Regional Office in order to make this survey possible.

CREDIT UNION NEWS

The CAA Region 6 Federal Credit Union annual membership meeting was held on January 23, 1953. Approximately one hundred members attended. The main business transacted at this meeting was the Election of Officers and the voting of the Annual Dividend.

A dividend at the rate of 4.4% was voted by the membership. All dividends have been credited to each member's Savings Account as of January 23, and you are requested to send in your Pass Book so that the entry may be made and the book returned to you.

The following will serve on the Board of Directors for 1953:

- | | | |
|--------------------------|-----------------------------|------------------------------|
| President | O. Dean St. Clair | Airports Division |
| Vice President | Desmond McCarthy | L. A. Traffic Control Center |
| Treasurer | C. W. Butler | Airports Division |
| Secretary | Phyllis Purdy | Airways Operations Div. |
| Member | W. L. Blankman | Facilities Division |
| Member | Paul DeVries | L. A. Traf. Contr. Center |
| Member | F. F. Townsend | Facilities Division |

The following will serve on the Credit Committee for 1953:

- | | | |
|---------------------|--------------------------|--------------------------|
| Chairman | Frank DeAndrea | Airways Operations Div. |
| Secretary | Eleanor Main | Business Admn. Division |
| Member | A. J. Vergilio | Aviation Safety Division |

The following will serve on the Supervisory Committee for 1953:

- | | | |
|--------------------|-------------------------|--------------------------|
| Chairman | A. H. Sielaff | Business Admn. Division |
| Member | H. S. Slayter | L.A. Traf. Contr. Center |
| Member | E. R. Diehl | Facilities Division |

Financial Statements and Comparison Reports have been forwarded to each field station. Any member wishing a copy for his own use may have one by sending a request to the Credit Union Office.

PERSONALITY OF THE MONTH

Charles G. Grosh

The new Deputy Chief of the Facilities Division is Charles Grosh, a Civil Engineer with a reputation for being versatile, heady and energetic.

By Jack Benny's standards, he is still a "youngster". At 38, Grosh can turn around and look at an engineering career with a large reservoir of accomplishments. His engineering education came the hard way. In order to stay in school, he waited on tables, did part-time instructing and held summertime jobs as laborer, electrician's helper, life guard, and a service station manager. Each of these helped him straddle the creek until he obtained his sheepskin from the University of Maryland in June of 1935. In spite of the part-time jobs in school, he still was able to become a member of a National Engineering Fraternity and was named to Phi Kappa Phi, Engineering Scholastic Fraternity. (Continued on next page)

As for his professional career, Charlie is probably more vocal about one assignment which he had while with the Bureau of Public Roads as a young engineer. He was assigned to design and construct the driveways in the south grounds of the White House. He had the opportunity to contact personally on numerous occasions the late President Roosevelt and was able to observe first-hand the personal life of the Nation's Executive Mansion.

Charlie joined the CAA in August of 1937. For the next five years he had various assignments scattered throughout forty of the forty-eight states. He was one of the Civil Engineers associated with the program establishing the SRA Radio Range. He came to the Sixth Region early in 1942 as Chief of the Projects Engineering Unit with the duty assignment of supervising the site selection, surveying, leasing, and design for various types radio stations, beacon lights, emergency landing fields, etc.

Grosh's most avid sideline interest is in photography. Although he styles himself as a "free lancer", he has advanced along the technical lines to the extent that he is now somewhat of a photography authority. His latest addition is an electronic er flash unit of the homemade variety. He derives a great pleasure out of prevailing upon someone to take a night out and observe his voluminous exhibition of color slides of his two children, Leni, 8, and Judy, 4.

Although Charlie has spent some time as a private pilot, having soloed in 1946, he classifies himself as being in the 100 hour pilot class and has little desire to pursue flying except as a sideline sport. He also had a short exposure to "ham" operation. He became a "ham" in 1933 with the call letters W3EAX but regrets to report that he is no longer active.

Charlie admits that the present assignment should constitute a real challenge to him. He has had some tough chores before so we are predicting that he'll hurdle this one in the same commendable manner.

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CAPITAL GLEANINGS

The new session of Congress has seen a flurry of bills introduced on behalf of Federal workers. Here are a few: (1) a bill providing a \$400 a year pay boost, introduced by Rep. K. St. George (R - New York). This bill carries an escalator clause which would automatically adjust Federal salaries according to fluctuations in the cost of living index. (2) A bill sponsored by Burdick (R - North Dakota) to make Civil Service retirement annuities tax exempt and to permit full retirement benefits for Federal workers after thirty years of service, regardless of age. (3) A bill to give official recognition to Federal employee unions, by Rhodes (D-Penn.) and G. Withrow (R-Wisc.); (4) An investigation of the Veterans Administration has been proposed in a bill sponsored by Edith Norse Rogers (R-Mass.); (5) Repeal of the Thomas leave rider, by Tesinski (D-Mich.). Other bills dealing with severance pay, unemployment compensation, and overtime pay have also been introduced.

It is too early to detect the attitude of the new Administration regarding employee legislation. It has been apparent that agency reorganization plans will come in for a large share of President Eisenhower's attention. Basic goals of the new Administration are to cut spending, taxes; balance the budget; put a check on social ventures, aid abroad; be kinder to business. For the next few months, it may be difficult to squeeze much of the desired employee plans into this big pattern. (Continued on next page)

Hitting the High Spots:

There will be a premium on attendance and punctuality in the 83d Congress. Because of the closeness of the party division in both Houses, absenteeism could be a decisive factor at this sessionThe aircraft industry is rapidly assuming the role of America's largest employer of industrial workers. More than 800,000 individuals will be building airplanes in this country this year with more than 4,000,000 engaged in building aircraft components, equipment and parts....One out of every nine dollars of the U. S. fiscal 1954 budget would be used for military aircraft and components... Delos W. Rentzel, former CAA Administrator and CAB Chairman will resign his current post as Vice President of W. R. Grace and Company about February 1. His future plans have not been announced...Congressional pressure is on to force a sharp cut in U. S. employees overseas...The Comptroller General has reversed an earlier ruling to permit vending machines to be operated in Federal buildings for the benefit of employee welfare programs - but only long enough to give Congress a chance to study the problem... Also, the Comptroller General has ruled that an agency head has the authority to tell you when you are to take annual leave. In other words, leave is at the convenience of the office - not yourself!...Job hungry Republicans, after twenty years in the desert, will slice a patronage pie in Washington of about 2,000 Federal posts paying all the way from \$3,000 to \$25,000...The Newsletter of the Civil Service Assembly of the U. S. and Canada reports: "A barber who operated a shop in a Philadelphia office building is moving to a new location. The reason? Several Federal Government agencies have taken over a building formerly occupied by shipping and fruit brokers. 'The brokers,' said the barber, 'used to slip away in the middle of the day for coffee and a haircut. These Federal guys can't!'"

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VOLUNTARY PLEDGE PLAN NOTES

There are 709 members of the Voluntary Pledge Plan Group at the time of writing this article. Rather than try to answer individual inquiries, we hope through the medium of the Sixth Region News to be able to keep members fully informed regarding the activities of the Plan. Several questions have arisen which will be answered in this article.

1. Filing of the cards in the regional office is done by groups. The number of cards and the amount of money paid in must, of course, be consistent. In some cases, members have sent in a card indicating for example, "Facilities Maintenance". Obviously, we cannot identify this member with any particular group. The member should indicate the group to which he belongs. For example, it would be satisfactory to show "Facilities Maintenance - Salt Lake City Center Group."

2. If a member is transferred from one facility to another, no mention need be made to the regional office administrative group. No funds will be transferred from one group to another in such cases. The member's \$5.00 will remain with the group which he originally joined until such time as a death occurs. At that time, the transferred member will merely become a member of his new group. For example: John Smith, a member of the Long Beach tower group, is transferred to San Francisco Tower. His card and his \$5.00 will remain with the Long Beach group until a death occurs. At that time, he will, of course, be dropped from the Long Beach group and picked up by the San Francisco group. Meanwhile should he decide to change his beneficiary card, he should indicate membership in the Long Beach tower group with a note on the back that he is now transferred and assigned to the San Francisco Tower. (Continued on next page)

3. Remember that the plan is continuously open provided the applicant pays his \$5.00 to the chairman of the local group which he wants to join and submits to that local chairman evidence of physical qualifications. If evidence of his physical condition is indicated by an examination such as control tower operator's examination, pilot's examination or military discharge examination, the local chairman may forward the date, type of examination and source to the administrative group as sufficient evidence of physical fitness. If a physical is taken for the purpose of becoming a member of the plan, Civil Service Form 78 may be submitted to the administrative group in Los Angeles for approval. The examination required by this form is quite simple and only the first page need be used. A new applicant must of course provide the local chairman with two beneficiary cards, one of which will be forwarded to the regional office.

4. Members submitting revised beneficiary cards should show the date of the revision rather than the date of joining the plan.

As of this date, over \$3300 is on deposit in the Credit Union for dispersal in one check when a death occurs. Those few who have not forwarded their pledges are urged to do so immediately. If and when a member dies, the local chairmen are urged to immediately collect \$5.00 from each member and forward to the administrative group for deposit in the Credit Union. Remember - failure to meet the assessment within fifteen days disqualifies a member permanently.

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DIVISION HI-LITES

AVIATION SAFETY:

The Division Chief and the Chief of General Safety Branch, Mr. Dwight F. Petersen, visited District Offices at Sacramento, Reno, Salt Lake City, Las Vegas, Fresno, Oakland, and Palo Alto for the purpose of discussing mutual regional and field problems.

United Air Lines anti-icing tests on the CV-340 were completed and satisfactorily demonstrated that the CV-340 is capable of flying in icing conditions as originally certificated (light ice) both on single and two engines.

Manufacturing Inspection Agent Glen Hall and Aeronautical Engineer Jack Bulmer attended the CAB hearing at Kansas City in connection with the TWA Lockheed 1049 accident. The accident occurred at Fallon, Nevada, on December 7, 1952, following complete power loss on numbers three and four engines during a flight from Chicago to San Francisco. In addition to CAA and CAB personnel, the hearing was attended by representatives of TWA, Wright Aeronautical Division, Lockheed Aircraft Corporation, ALPA, Flight Engineering International Association, etc. The purpose of the hearing was to determine the facts concerning the failure in flight and the emergency landing, as well as to determine if proper procedures on the part of TWA flight and training personnel had been followed. Testimony at the hearing indicated that evacuation of all occupants of the airplane was accomplished in approximately two minutes and that no one suffered injury.

Evaluation of technical data, flight testing and ground inspections have been completed on the Twin-Navion, and the airplane is now eligible for certification at 2950 lbs. gross weight. (Continued on next page)

Mr. Sitaram, Controller of Aeronautical Inspection, H.A.L. Bangalore, India, has been cleared for entrance into Lockheed and Douglas plants for the purpose of studying quality control of civil aircraft in this Region. He is expected to be in the Region for approximately six weeks.

Messrs. Maloy and Carran of Flight Test Branch, Washington, and Mr. Hugh Freeman of CAB visited the Region to participate in a meeting of the CAA-CAB Performance Requirements Committee and the A.I.A. Sixth Region Aviation Safety Division personnel also attended. While in the Regional Office, Mr. Maloy discussed the proposed changes to the performance requirements with regional personnel.

Flight Operations Agent Fydell participated in Lockheed Constellation training at Burbank in connection with Intercontinental Airways, Inc., proposed operation under Part 45.

Lockheed Constellation N38936, owned by Intercontinental Airways, Lockheed Air Terminal, Burbank, either inadvertently landed with the wheels up or the gear collapsed during pilot transition landing at 6:40 p.m., January 22, 1953. The aircraft was destroyed by fire on Runway 15. Ten persons, including Flight Operations Agent Chandler and Air Carrier Maintenance Agent (EE) Griffith, were aboard. There were no fatalities or injuries.

The Director of the Philippine CAA spent a day with personnel of the Los Angeles Air Carrier District Office reviewing the Agents' work with scheduled air carriers.

A Commercial Operator Certificate has been issued to Viking Airlines, Burbank, California.

The proving run and report for Western Air Lines' Douglas DC-6B operation have been completed and service started on the coast route. The operation has been routine. Western Air Lines has announced the purchase of three more Douglas DC-6B's. This will increase its fleet of this aircraft to eight. Also, proving runs have been observed on the Eastern Division of United Air Lines' operation of the CV-340. Operations started prior to the first of the year.

United Air Lines is going to equip all its Douglas DC-6 fleet with the rotating beacon on the top of the tail group. This decision has resulted from extensive test of the system.

California Eastern Airways has started conversion of its R-2000-7 engines to -7M2. The first four engines will be available soon. In this connection, California Eastern has indicated its intention to assume active management of the Howell Propeller and Engine Overhaul Shop.

The following is a report of totals relating to safety discussion meetings for the first half of this fiscal year, as reported by our General Safety Agents:

Total number of meetings	45
Total attendance	2395

Topics involved: Accidents, hazards of careless and reckless operation, violations, aircraft maintenance, pre-flight planning, in-flight safety precautions, weather effect on flight, application of visual flight rules, navigation aids and communications, air traffic control, need for self-development in aeronautical knowledge, local enforcement, Civil Air Regulations, airmen certificates, flying club activities, glider group problems and agricultural operations. (Continued on next page)

Mr. Leonard H. Williamson and Mr. Mack Bell have returned from military service and are occupying their former positions of Aeronautical Design Evaluation Engineer (Supervising Project Engineer) in the Airframe and Equipment Section and Supervising Agent of the Burbank Manufacturing Inspection Aviation Safety District Office respectively. Other personnel scheduled for early return from military service are:

<u>Name</u>	<u>Date of Return</u>	<u>Position to be Occupied</u>
Armer M. Alcorn	January 25, 1953	Chief, Aircraft Engineering Branch
George D. Bogert	February 1, 1953	Chief, Airframe and Equipment Section
Albert L. Gammon	February 15, 1953	Chief, Air Carrier Operations Section (pending return of Clarence L. Schmid from military service)

Mr. John W. Eagleton, Flight Operations Agent, Burbank Air Carrier District Office, was recalled to the Navy Department effective January 7, 1953.

FACILITIES DIVISION:

Establish VHF Ranges:

Oceanside, Calif: Preliminary arrangements are being made to make electronic tests for a VOR near Oceanside.

Pt. Mugu (Camarillo) We are still waiting on AACS to complete a road into their Middle Marker site which we propose to test for VOR. The site has been too wet for road construction.

Relocation of VHF Ranges:

Bryce Canyon, Utah: Installation work is progressing rather slowly due to much snow and inclement weather. Expect to have it ready for flight test by February 10th. DME equipment is being installed concurrent with the VOR.

Fresno, California: A satisfactory flight check has been made on a new site on airport property and a site survey is in progress.

Tucson, Arizona: It is planned to move the portable equipment to this site and test early in February.

Lucin, Utah: Plans and specifications have been prepared for a proposal for construction bids issued to be opened March 10th.

Improve VHF Ranges:

San Francisco, Calif: Satisfactorily completed on January 6. DME was installed concurrent with the VOR improvements.

Oakland, Calif.: Improvements to VOR and installation of DME will be completed before the end of the month.

Establish Intermediate Field:

Furnace Creek, Calif: Bids were opened on January 6th and contract awarded to low bidder P. J. Moore & Son, Floyd O. Bailey, and John G. Mehren on January 16. Notice to proceed was issued effective January 21 and work started immediately. Expect completion in April.

Establish ILS:

Arcata, Calif: The electronics crew is at this site preparing to make further flight checks for the glide slope TUS equipment.

Modernize ILS:

Oakland, Calif: Installation of new glide slope equipment was completed and satisfactory flight check conducted on January 16.

San Francisco, Calif: Installation of TUS glide slope in progress, expect to complete before February 28.

Santa Barbara, Calif: Glide path installation delayed due to weather preventing completion of ground fill by City.

Establish HIALL:

San Francisco, Calif: Work on this project has been delayed by wet weather, but it is expected to complete the original contract work on February 25.

Replace 3-Phase Voltage Regulators at HY's:

Arcata, Calif: The new regulator was installed and placed in service on January 19. On January 20, trouble developed and it had to be taken out and shipped to the G. E. Service Shop in San Francisco for repair.

Establish PAR:

San Francisco, Calif: Plans and proposal are being prepared for issuance about February 26.

Establish ASR:

San Francisco, Calif: Contractor has returned and is working on this installation with expectation of completing installation in February.

Oakland, California: Contractor expects to start work on modification and final installation upon completion of San Francisco in February.

Establish TOWACS:

Construction and installation of 18.75 engine generator will be completed at Fresno, Calif, on January 30th. Engineering drawings and plans were completed and installation work was started on January 19th. (Continued on next page)

Phoenix, Arizona: Installation was completed at this site on January 21.
Commissioning flight check was made on January 15.

Relocate INSACS:

Williams, Calif: Installation work was completed on January 8.

El Centro, Calif: Installation work started on January 21.

Install SVC "A" Teletype Drop:

Ely, Nevada Engineering and installation of equipment was completed on this project on January 15.

Training Programs:

The following personnel of the Maintenance Branch are attending classes indicated at the Aeronautical Center, Oklahoma City, Oklahoma:

<u>ILS/VOR</u>	<u>DME</u>	<u>Indoctrination</u>
H. C. Stokeley, EMT-LOL	O. B. Cox, SEMT-EKO	T. M. Lawless, EMT-OAK
R. B. Thatcher, EMT-GBN	M. C. Nickerson, EMT-SFO	K. C. Flandro, ENT-SLC
G. R. Hobbs, SEMT-RBL		

<u>ASID/SECO</u>	<u>Multiplex</u>	<u>28 Printer</u>
H. E. Bertuleit, EMDS-OAK	A. J. Cooper, EMT-SFO	W. S. Warr - EMT, FAT
	E. Mathews, EMDS, SFO	F. Ogg, EMT-BUR
	A. D. Herbert, Engr.RO	M. G. Workman, SEMT-DTA
		E. H. Hutchinson, EMT-PHX
		W. D. Craggs, EMT-FJS

AIRWAYS OPERATIONS DIVISION:

Mr. Ulysses Segui of the Brazilian CAA arrived January 6 to spend approximately one month on detail to the Regional Office for the purpose of studying air traffic control. This is a part of a six-month assignment to the United States. His title is Air Traffic Control Inspector and Instructor, and, in his own country, he is referred to as Professor Segui. His wife and daughter are accompanying him on this assignment.

Mr. Chester Church, the new District Supervisor, will report for duty February 16.

District Supervisor Art Fielder met with Dr. William Winn and other Porterville area pilots recently to discuss weather broadcasts. As a result we have added some reports to Fresno and Bakersfield which will apparently satisfy the pilots.

Discussion and coordination between the Airways Operations and Facilities Divisions continue in respect to the proposal to combine the Long Beach, Los Angeles and Burbank Stations.

Mr. W. B. Swanson, Chief, Technical Services and Planning Branch, Region Seven, visited the Regional Office December 30 and 31. Control problems common to both regions were discussed.

AIRPORTS DIVISION:

During the week of January 5, the District Airport Engineers met with the Chief, Airports Division and members of his staff. The principal subjects discussed were as follows:

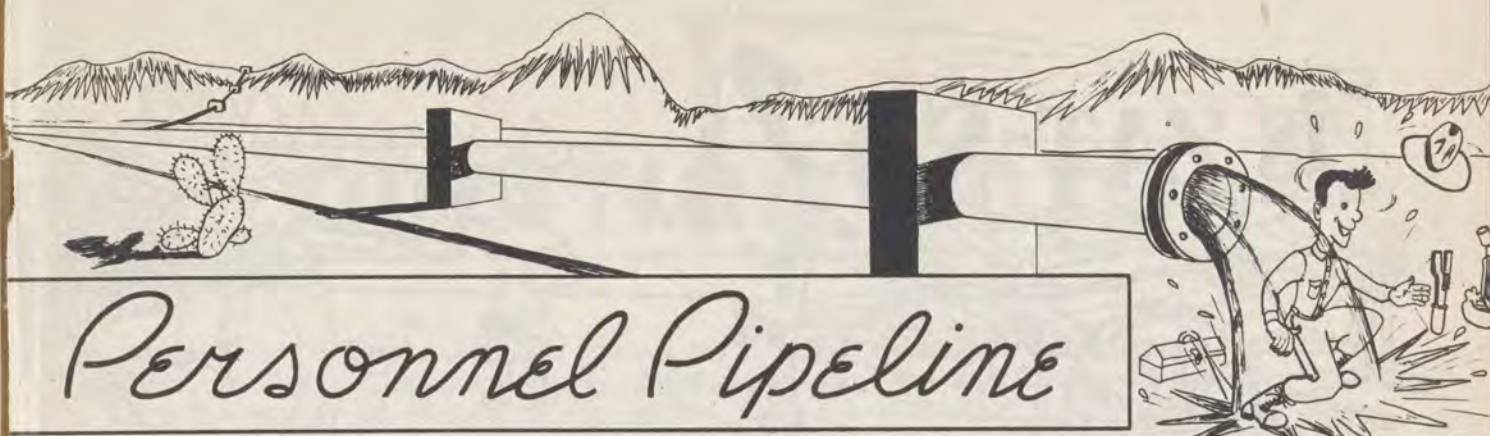
1. The National Airport Plan (Planning criteria)
2. 1954 Federal-aid Airport Program
3. Organization and complement
4. Administrative Funds, S&E and FAAP
5. Performance Ratings
6. Procedures
7. Facility Records
8. Master Plans
9. Engineering Problems
10. Surplus property
11. Field inspections by Regional Office personnel
12. Determination of airport service categories
13. Coast and Geodetic survey obstruction plan charts
14. Project audit.

At the conclusion of the conference the fiscal year 1954 Federal-aid Airport Program and 1953 National Airport Plan were formalized and submitted to Washington.

On January 6, 1953, Operations Officer Barton, in company with the Assistant District Airport Engineer of the SOCAL District Office, attended a meeting of officials of San Bernardino County and Gilfillan Brothers, Inc., with respect to the desire of Gilfillan to lease the Fontana Airport exclusively for defense purposes. This matter is now pending before our Washington Office for a determination with respect to withdrawing this facility from public use.

On January 20 and 21, 1953, the Chief of the Airport Operations Branch attended a pre-trial conference with officials of the Tucson Airport Authority regarding two suits now pending against the Authority by former tenants on the Tucson Municipal Airport. It was necessary that these tenants be removed from space they occupied on the airport in order to accommodate national defense activities of the Grand Central Aircraft Company. CAA attendance is in an advisory capacity only in view of the weight that is being placed on the interpretation of the exercise of the national emergency clause.

Project requests were received by the SOCAL District Office from Santa Monica Municipal Airport, Santa Monica, California; Ontario International Airport, Ontario, California; and Hawthorne Municipal Airport, Hawthorne, California.



New Reduction in Force Regulations:

The Civil Service Commission recently revised the reduction-in-force regulations. The new regulations reduce from 23 to 6 the number of reduction categories and also abolish the reassignment or "bumping" rights of indefinite employees. Formerly the major groupings were PA, TA, X, Y, B, and C, with each of these having a number of sub-groupings. Now there are only three major groupings: (1) Career, (2) Career-conditional, and (3) Indefinite. Each of these are then divided into two categories - Veterans and Non-veterans. The groupings are:

Group I - CAREER: In the competitive service, this group consists of career employees who have completed probation and who are not "temporary" or "indefinite" as the result of promotion, transfer or reinstatement, except that career employees serving under conditional promotions shall be considered in this group with respect to positions at and below the grade in which they last served on a permanent basis. Persons serving under "excepted" appointments fall in this category also provided they are serving under appointments with no conditions or restrictions. Persons entitled to veteran preference are in subgroup "A" and others in subgroup "B".

Group II - CAREER-CONDITIONAL: In the competitive service, this group includes career employees who are conditional because they are serving probational periods, or are "temporary" or "indefinite" as the result of promotion, transfer or reinstatement or are subject to some other limitation of a similar nature. Persons serving under "excepted" appointments who have conditions or restrictions as the result of promotion or reinstatement are included in this category. Persons entitled to veteran preference are in subgroup "A" and others in subgroup "B".

Group III - INDEFINITE: This group includes persons serving under non-status non-temporary (without time limitation) appointments in positions in the competitive service. It also includes employees in positions "excepted" from the competitive service serving under any condition or restriction other than a conditional promotion or reinstatement or a specific time limitation of one year or less. Persons entitled to Veterans Preference are in subgroup "A" and others in subgroup "B".

Employees in positions affected by a reduction in force who have a current performance rating of "Unsatisfactory" would be the first to be affected. Next would be employees serving under a temporary appointment with a time limit. Separate reduction in force registers will be compiled for: (1) positions in the competitive service; (2) positions in the "excepted" service and (3) positions filled on a seasonal or when-actually-employed (WAE) or part-time basis.

The "Question Box" of this issue contains some questions and answers which were developed on these new regulations.



DID YOU KNOW THAT -

1. The U. S. Chamber of Commerce reports that commercial aviation enjoyed a 17% increase in volume during 1952 over that of 1951?
2. Eastern Air Lines received \$3,500,000 in revenue during the first week in January? This is more than the sale price in 1938?
3. Parking meters recently installed at Sky Harbor Airport in Phoenix returned approximately \$1,000 during the first six weeks of operation?
4. A two-day short course for "Aerial Spraying and Dusting" will be held at Utah State Agriculture College, February 4 and 5, 1953? The Salt Lake City ASDO assisted the Agricultural College in organizing the program.
5. On January 4, 1953, Eastern Air Lines carried 18,112 passengers. Receipts were \$586,560. Not bad for one day's operation.
6. Cessna Aircraft Company is ready to begin production on a new twin-engine "private" four-place aircraft?
7. That one out of every nine dollars of 1954 Federal budget is set aside for aircraft and components?
8. It took the British five and one-half years to develop the new Comet Jet aircraft?
9. A recent case survey indicated that the U. S. will need 160 all-freight aircraft by 1960? Other organizations feel that this is a conservative forecast.
10. It is estimated that the aircraft industry will be the largest employer in the U. S. in 1954? 800,000 employees will build airplanes and 4,000,000 others will work on components, parts, and equipment.



QUESTION BOX?



The Civil Service Commission has issued its long-awaited new regulations simplifying the Government's reduction-in-force program procedures. The new system reduces from 23 to 6 the number of reduction categories and also abolishes the reassignment of "bumping" rights of temporary indefinite workers. Here in question and answer form is a brief explanation of the new RIF regulations.

- Q. What is the purpose of the new procedures?
- A. To simplify, improve and make more equitable layoff procedures affecting Government workers and to eliminate the "endless chain of bumpings" that often follows reductions in force.
- Q. How do the new procedures attempt to accomplish this?
- A. By reducing from 23 to 6 the number of categories heretofore used in reductions in force and adjusting eligibilities for each of these categories.
- Q. What are the new categories?
- A. Career, career-conditional, and indefinite, each of which is divided into sub-groups "A" and "B", with "A" indicating veterans preference.
- Q. What are some of the major changes in the revised procedures?
- A. Indefinite employees no longer have reassignment or "bumping" rights and workers with "unsatisfactory" performance ratings are dropped to the bottom of the retention list for reduction in force purposes.
- Q. Why have the "bumping" rights of indefinite workers been eliminated?
- A. Indefinite employees accept such appointments with the understanding that they are not of a permanent nature. Agencies, therefore, have no obligation to disrupt their operations in order to retain indefinite employees.
- Q. What effect do the new procedures have on career workers serving their probationary periods?
- A. They lose their top rights and are placed in competition with other career employees whose tenure is also limited.
- Q. Are career workers reinstated since September 1950, affected?
- A. Yes. They will now be in competition with career workers serving under temporary promotions. There is this difference, however. Promoted career-conditional workers have full career rights if reduced to their former permanent grades;
- (continued on next page)

reinstated workers have no permanent grades to be reduced to.

- Q. When will the new procedures go into effect?
- A. The Department of Commerce has issued a statement that these regulations will be effective on reduction in force notices issued on or after February 1, 1953.

* * * * *

BLOOD DONORS

Heartiest congratulations to the following Regional Office employees who answered the call from the Red Cross and visited the Mobile Unit Blood Bank in Westchester during January. A special vote of thanks to Elemo Hartwell, who did most of the recruiting:

Myrna Williams
Sam Keim
Clancy Steen
Guy Jarrett
Lew Bungarner
Elemo Hartwell
Hal Friedland (SOCAL)

* * * * *

A GOOD DEED

We learned of a project undertaken by the Long Beach, California, Tower and think it is deserving of commendation. We want to pass it on to you not only to commend the Tower personnel, but also with the thought that some of the other facilities might want to give some consideration to undertaking such a project.

Personnel at the Long Beach Tower contacted the local Community Chest Office and obtained a list of needy families located in that area. This list does not indicate names, but merely lists the families by a number and description. The Tower chose a widow and four children, ages one to six years. All personnel contributed a total of seven large cartons of clothing and toys and about \$30.00 in cash. This was given to the Community Chest who, in turn, delivered it to the needy family.

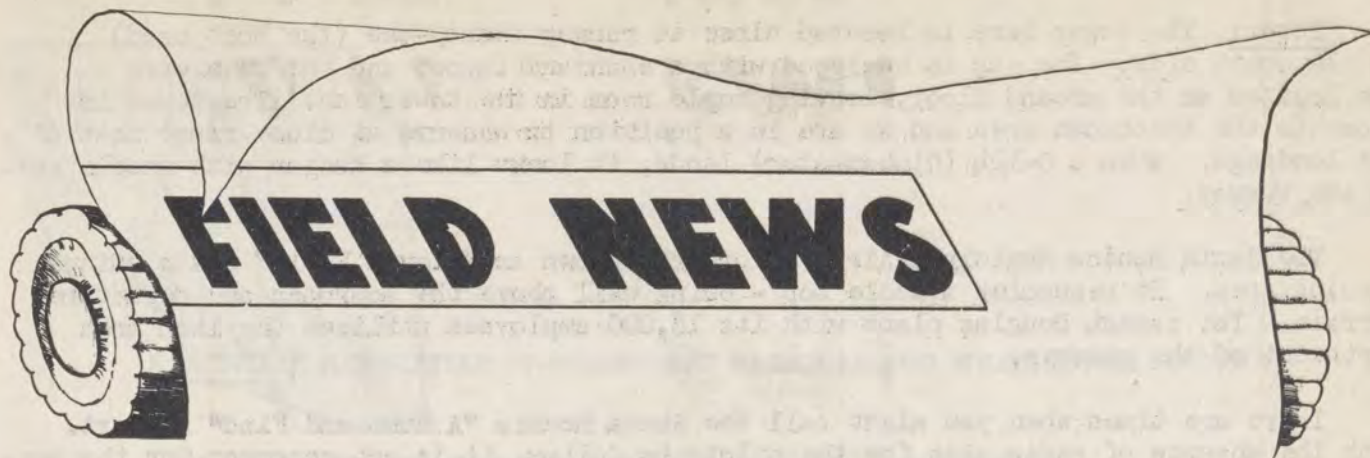
A letter of deep appreciation was received from the mother to whom the gifts were given.

This is not a new venture for the Long Beach Tower. It has been done twice before and they plan to continue it in the future. We believe such a fine gesture is certainly praiseworthy.

REGIONAL HIGHLIGHTS OF 1952

- January 15: Messrs. Tetsuo Oba and Ichiro Narahashi of the Japanese Aeronautics Agency and Mr. Dei Yuen of Aeronautical Radio, Inc. visited the Region to familiarize themselves with CAA procedures.
- February 1: Donner Summit, Milford and Oceanside Communications Stations were decommissioned.
- Ogden Tower decommissioned and personnel transferred to the Palmdale Tower.
- San Diego INSAC completed twenty-one years of operation. It began operation as a teletype station February 1, 1931.
- February 3: Reno commissioned as a combined facility.
- February 4: Charles P. Merlin, Senior District Engineer for the Ministry of Public Works of Greece, arrived in the Sixth Region to begin a study of airport design, construction, lighting, maintenance and related fields. This program is arranged under an ICAO fellowship.
- February 8: Ontario localizer commissioned.
- February 28: Rex Brown, Radar Maintenance Technician at the Los Angeles International Airport, was presented a Superior Accomplishment Award by Secretary of Commerce Sawyer in Washington, D. C. Rex is the first employee in the Department of Commerce to receive this award.
- March 19: Safety Agent Paul Thornbury accompanied the Operations Manager of the Los Angeles Airways on the flight of a Sikorsky S-55 helicopter from New York to Los Angeles.
- March 22-31: Employees at Elko actively participated in the well-known "Operations Haylift" conducted in the snowbound area surrounding Elko, Nevada.
- April 1: OFACS at San Francisco celebrated its 10th birthday. Five of the original employees are still employed at the station.
- May 9: Pins were presented to Dante H. Cordano, Airways Operations Specialist, San Francisco, and S. S. Boggs, Deputy Chief, Airports Division, for completion of thirty years of service in CAA and predecessor agencies.
- June 15: Approach control service was inaugurated at Reno and Las Vegas.
- July 21: Emergency traffic control was set up at Tehachapi, California, by Bakersfield personnel, T. Powell and C. R. Boughton. This was in response to an appeal by the Airport Superintendent and Sheriff's Office to handle congestion of aircraft engaged in disaster relief as a result of the earthquake which caused extensive damage in that area.

- August 9: Paso Robles VOR was commissioned.
- August 15: AMIS (Aircraft Movement Identification Section - Security control of air traffic) operation began at the Oakland Center.
- August 20: Burbank ILS Localizer and HIALL commissioned.
- September 13-14: Dedication ceremonies for the new Phoenix Sky Harbor terminal buildings were attended by personnel from Airports, Facilities and Aviation Safety.
- September 15: Federal Airways appraisal team visited Region 6 to evaluate the job being done in establishing, maintaining and operating the Federal Airways system. Their inspection was cut short by the Administrator's request that they proceed to Wake Island for an on-the-spot evaluation of the typhoon disaster there.
- September 19: Salinas VOR commissioned.
- September 22: Phoenix VOR commissioned.
- October 19: Dedication of new CAA Communications Station at Marysville.
- October 20: Mr. Acuna representing the Director of Aeronautics of Mexico, accompanied by Mr. Gonzales of Tijuana, visited the Region to discuss this Region's participation in handling flight plans between the United States and Mexico.
- October 21: AMIS operation began in Los Angeles Center.
- October 22: World's oldest licensed pilot James W. Montee co-piloted a DC-4 at Clover Field, Santa Monica, California, on his 90th birthday.
- October 24: DME commissioned at Long Beach on test basis.
- November 7: Hughes Aircraft Company Wright Trophy was presented to the San Joaquin Empire Association. This is the first presentation of what will be an annual award for the encouragement of aviation safety development.
- November 14: Hanksville VOR commissioned.
- November 15: DME commissioned at Ontario on test basis.
- November 19: Sacramento combined facility commissioned.
- December 9: J. S. Marriott was awarded Up-to-the-Minute Achievement Award at the Joint Advertising Club luncheon at the Stattler Hotel in Los Angeles. Mr. Marriott was selected for his significant contributions to the development of the aviation industry in Los Angeles area. As stated in "Minute" magazine - "The progress of Los Angeles as one of the world's leading metropolitan areas is reflected in the achievements of individuals whose charity and civic consciousness are excelled only by their business acumen."
- December 23: Glide Path facility of IIS at Burbank commissioned.



SANTA MONICA, CALIF:

Manufacturing Inspection Area Office: The activities of a field office of Manufacturing Inspection are not productive of strident tales of derring-do which keep the reader on the edge of his seat until such time as the hero saves all or the reader falls off his seat. However, I am tendering a few little known facts or questions mostly asked by visitors to aircraft manufacturing plants. There are:

1. The cost of a modern transport airplane is approximately \$20.00 per pound. Some of our best automobiles cost only \$1.00 per pound.
2. Time to build an airplane - it takes from six to eighteen months to first procure all forgings, build small parts and acquire instruments, after which it takes two and one-half months to manufacture and assemble these parts into a complete Douglas DC-6B.
3. About twenty DC-6B's are in the process of constant assembly.
4. Approximately 20,000 people are directly concerned with engineering and manufacture of Douglas transport airplanes, although all these people do not work full time as many military models are also under construction.
5. The safest place to ride in an airplane (the tail or rear cabin seats) is also the most uncomfortable due to seemingly constant wriggling or twisting motions, especially while flying in turbulent air.
6. Airplane brakes costing about \$8,000, containing only a few working parts and carried inside the landing wheels, can stop the airplane in approximately the same runway length that it takes over \$200,000 worth of four complicated engines four feet wide by eight feet long to start it flying.
7. A modern transport airplane has approximately twice as much stopping power as it has starting power. Only the engines can start it, but the pilot can use wheel brakes and engines to stop it when the airplane is equipped with reversing propellers.

Tower: The tower here is located close to runway twenty-one (the most used) on the south side. The cab is equipped with a standard layout and the receivers are located on the ground floor, leaving ample room in the tower cab. The tower is close to the touchdown area and we are in a position to observe at close range most of the landings. When a C-124 (Globemaster) lands, it looks like a hangar with wheels setting on the runway.

The Santa Monica Municipal Airport formerly known as "Clover Field" has a unique landing area. It resembles a table top --being well above the approach and departure terrain. The parent Douglas plant with its 18,000 employees utilizes the land area northwest of the runways.

There are times when you might call the Santa Monica "A Hunt and Find" Airport. With the absence of radio aids for the pilots to follow, it is not uncommon for the controller to give detailed instructions to help him in his effort to locate the airport and land. There are days when the traffic pattern and runway look like highway 99 on the start of a three-day holiday - the only difference, the traffic is airplanes.

WENDOVER, UTAH:

INSAC: The excitement around Wendover for the past month has been the locating of two aircraft, a C47 and a Cessna by the Civil Air Patrol and the Air Force. Both of these aircraft were located after the search had been underway for about four hours.

The L/MF range, we believe, is the only one of its kind in the United States. Located approximately three miles from the INSAC, it is usually submerged in salt water, so it is necessary that the EMT and SEMT don their hip boots when making repairs.